BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

SURGERY AND SYPHILIS

I. SYPHILIS IN RELATION TO GENERAL SURGERY

CHARLES EATON PHILLIPS, M. D. (2007 Wilshire Boulevard, Los Angeles).—The incidence of syphilis can only be estimated, as there are no statistics available to show its extent. The American Social Hygiene Association estimate that 5 per cent of the population are syphilitic. Such an estimate, from that source, is probably essentially correct.

Many diseases, such as smallpox, yellow fever, plague, puerperal fever, malaria, tuberculosis, and others, destroy a greater percentage of those infected, yet their deadliness is recognized and feared, and their ravages have been stopped by scientific medicine. Our knowledge concerning syphilis, its cause, course, symptoms, and methods of relief and cure, are as comprehensive as our understanding of any of the other deadly diseases, and yet we have not checked its ravages to any extent.

Destructive Action of Syphilis.—It still stands in the front rank of diseases destroying the race. There are reasons for this condition. First, let us list the difficulties of detection. A person may be suffering from syphilis in a contagious form, and still not show any characteristic symptoms which would warn those who might come in contact with him. Syphilis may be transferred before the symptoms of the disease become manifested. It may be contracted, and the person may not be aware of the infection until long afterward, when the disease is firmly established and a cure impossible.

The second reason for the spread of syphilis is that a little treatment will frequently clear up the early symptoms, and the patient goes on (ignorantly or carelessly) spreading infection. Many times the syphilitic patient receives treatment before a definite diagnosis is made. Neither the doctor nor the patient knows what the patient has, and as soon as the symptoms are relieved the treatment is stopped and the patient eventually dies of syphilis.

The fallacy that the infection can be stopped by an early cauterization of the initial sore is responsible for many cases which could be cured by adequate treatment in the early stage of the disease. It has been shown, since the discovery of the treponema, that the infection becomes widely diffused in the body almost from the first, and any kind of local treatment is entirely unavailing in an attempt to stop the disease before it becomes systemic.

Many initial sores are overlooked or, if seen, are not recognized. The difference between the number of those known syphilitic and the number who show the presence of the infection by its late manifestations, illustrate the dangers of overlooking syphilitic infection.

In 1924, Newsholme estimated that the annual death rate from known syphilis was one hundred and eighteen per million, or a total of about four thousand in England and Wales.

Osler (1915) estimated, in the same geographic limits, that the effects of syphilitic infection, neurologic, and cardiovascular were responsible for sixty thousand deaths, or fifteen times as many as were recognized as syphilitics. When we add to this number the sterilities, abortions, miscarriages and, worse than all, the mentally and physically unfit due to syphilitic infections, then we can see the appalling destruction that is due to syphilitic infection, and how it occupies a position as the most destructive disease affecting the human race.

In the Johns Hopkins Hospital Medical Service, where the Wassermann test is obligatory on every patient admitted, syphilis appears in 20 to 25 per cent of all colored patients, and from 7 to 10 per cent of the whites. One would expect the incidence of the disease to be considerably higher on the medical service than on the surgical side; yet the number of unsuspected cases that appear shows the necessity of continual vigilance in every department of medicine and surgery.

According to Albert Keidel, life insurance data show that among insured syphilitics there is a mortality of 168, compared with a rate of 100 covering all classes of insured persons, including the syphilitics. The same author states that 25 per cent of patients with recognized but untreated syphilis of more than two years' duration will have central nervous system involvement, and that from 40 to 80 per cent of such cases will have cardiovascular damage sufficient to lower their reserve.

Surgery in syphilitics is attended with an element of uncertainty. Active, untreated syphilis contraindicates all except absolutely emergency surgery. The syphilitic with infection under control offers no particular problem to the surgeon, and but slight increase in risk. Patients with latent untreated syphilis show a rate of danger distinctly higher than that in uninfected cases.

Danger of Syphilis in Surgery.—Syphilis offers a threefold danger in surgery:

First, it leads to errors in diagnosis. Nuzum, in a survey of one thousand operations in known syphilitic patients in the Cook County Hospital, found that ninety-seven useless and unnecessary operations had been performed on eighty-seven patients. Gastric ulcer, gall-bladder disease, appendicitis and salpingitis headed the list (Dean Lewis Surgery). When so many errors are made by competent surgeons in those known to be syphilitics, we can only surmise the mistakes of the less

skillful where syphilis is unknown and probably unsuspected.

On the other hand, the presence of a syphilitic infection is no assurance that the patient may not be suffering from other diseases at the same time. Many a case of known syphilis has suffered from disease of the gall bladder, appendix, salpingitis or other acute surgical diseases, and on account of the known infection operation has been delayed too long.

Secondly, there is an increase of the immediate mortality rate attending surgery. This can only be estimated by the lowered resistance of infected patients, and the less expectancy of life as shown by the life insurance statistics.

Thirdly, syphilis makes for an interference with the healing of wounds in a certain percentage of surgical cases which have been insufficiently treated. To illustrate: A young lady of twenty-five years was operated for the relief of a chronic pelvic inflammatory disease. There was no history of syphilis. There was a history of taking "shots" for anemia. The Wassermann was negative. Following the surgery, there was an uncomplicated recovery until the tenth day. The stitches had been removed and healing had seemed satisfactory when the edges of the incision began to necrose. A thin line of dry gangrene appeared along the edges of the wound. The Wassermann was repeated and found to be positive. Antisyphilitic medication caused prompt healing.

We can see the necessity of requiring a routine Wassermann in all cases admitted to hospitals. The negative history and the routine physical examination are not sufficient assurance that the patient is not infected with syphilis. A disease causing more trouble than any other is worthy of the utmost care in its treatment and cure. While the serologic tests do not always show the presence of existing syphilis, their routine use would do much to eradicate the disease.

Social Phases.—The stigma that attends infection with syphilis is one of the chief reasons for hiding its presence. Few, who find they are infected, are in a position to carry on treatment for a sufficient time to insure even a relative cure without sharing their secret with someone else. If, for no other reason, the expense of the treatment and the necessary precautions that must be taken are sufficient to betray their secret. Rather than divulge their secret, they are tempted to stop treatment when their symptoms are relieved and before a cure could be hoped for.

The injustice of the present system is apparent when we consider the way different crimes against society are punished. The careless individual throws a stone into a crowd and accidentally puts out an eye or scars a face. The offender is fined an amount commensurate with his ability to pay. He may be incarcerated for his act. The same careless individual infects with syphilis. There is no redress, although the patient's entire life may be ruined, as well as that of any offspring.

Possibly a young girl is betrayed and bears a child. The father of the child is held responsible for her condition. He is required to recompense her by marriage and support, or may pay money to support her and her child, as far as he is able.

In the event that he infects her with syphilis, he places a lifelong stigma on her, and yet is not held accountable for his act. The infection not only ruins her life, but also that of any offspring she may have subsequently.

In Conclusion.—Syphilis increases the hazard of operations and jeopardizes the result of surgery. Active syphilis should contraindicate all except emergency operations. The shock of surgery may activate latent syphilis.

A single negative serologic test is no assurance that the patient is free from syphilis. A negative history is of little importance regarding syphilitic infection. Family traditions, social position, religious affiliations, or absence of a history of specific infection cannot be accepted proof of freedom from the infection.

The cure of syphilis is problematical. When the case is seen early and treatment is adequately administered for a year and following, there should be check-up examinations every three months without any treatment. If these tests remain negative for the year, and the spinal fluid Wassermann, cell count, globulin, titrated Wassermann and colloidal are negative, the case may be considered clinically cured. There is no assurance that the cure will be permanent, and Wassermann tests should be taken at intervals for at least ten years. Spinal fluid tests should be repeated on the first untoward symptoms as long as the patient lives.

The prevention and final eradication of syphilis is possible only if the transmittal of syphilis is recognized as a crime and punishable by law.

A negative Wassermann test before marriage, while it is a step in the right direction, is not sufficient to control the disease. Syphilis is spread by many who are not interested in marriage.

Syphilitic infection, even if not transmitted, must be recognized as a misdemeanor and quarantinable unless adequate treatment is being taken. Treatment must be made available to all infected cases.

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II. SYPHILIS IN RELATION TO INDUSTRIAL MEDICINE

HARRY E. ALDERSON, M.D. (490 Post Street, San Francisco).—Industrial dermatoses occur in all trades and occupations, but it is mostly in certain vulnerable individuals that they are seen. Advancing years (past forty), congenitally thin or susceptible skin (allergy), and various underlying constitutional diseases are important factors. Under the last heading, syphilis may be listed as a fairly common cause. Syphilis at all stages not only tends to make the worker less careful, but on account of the tendency that even the latent syphilitic's skin shows to develop syphilomata at the site of traumatism, it often has to be con-

sidered. Also syphilis may at times retard the healing of wounds. So this disease renders its victims poor industrial risks.

Two cases in point were reported by me in 1931.[1]

Case 1.—Mr. C. C. (No. 25948), a Mexican carpenter, thirty-nine years old, presented a typical, non-ulcerating gumma, extending across the left upper orbital margin. There was a similar smaller lesion at the inner end of the right eyebrow, which had been present for several months. The former lesion appeared shortly after the patient was injured in that spot by a piece of lumber on which he was working. An abrasion resulted and it never healed, developing finally into a typical syphiloma. There was no history of syphilis, and the only other evidence found was a strongly positive blood Wassermann. Under neoarsphenamin and bismuth the lesions disappeared.

Case 2.—Mr. P. C. (No. 25190), an Italian laborer, thirty years old, presented a typical, non-ulcerating syphiloma at the right inner canthus. His blood Wassermann was strongly positive. It was impossible to obtain a history or other evidence of syphilis. About two months previously, while cutting wood with a "rip saw" a splinter of wood struck the side of his nose near his eye. The patient pulled out the splinter, and there was some bleeding. The wound never healed, and the syphiloma gradually developed. Under neoarsphenamin and bismuth injections it subsided rapidly.

In each of these two cases responsibility was accepted by the insurance carriers, and the necessary treatment to eradicate the lesions only was authorized.

The following case record, taken from the United States Public Health Reports of 1916, and the quoted court decision, establishes the status of these cases:[2]

A workman was injured by an accident in a sawmill at Traverse City, Michigan. Under the Workmen's Compensation Law, payments were made for a period of nineteen weeks, when the employer refused to make further payments, upon the ground that the employee's continued disability was due to syphilis, which retarded the healing of the wound.

The Michigan Supreme Court, however, decided that payments must be continued. Mr. Justice Person, in the opinion, said: "The consequences of the injury extend through the entire period, and so long as the incapacity of the employee for work results from the injury, it comes within the statute, even when prolonged by preëxisting disease."

Numerous decisions have placed on the insurance carrier the responsibility for medical care of syphilitics who have developed syphilomata as a result of vocational trauma or irritation. (See Klauder[3] and Harry Foerster.[4] Foerster[4] comments as follows:

"Compensation is not dependent on any implied assumption of perfect health, and does not exclude the weak or physically unfortunate, or those with latent and unknown tendencies to disease. The employment of a man is in itself an assumption that he is physically and mentally fit for the work."

Klauder[3] cites numerous examples where traumata of various kinds have determined the appearance of syphilomata at the site of injury. There is to be remembered also the often-quoted example of the occurrence of gummata on the foreheads of Mohammedans, who in their religious ceremonies frequently strike their heads on the marble floor.

With syphilis so prevalent, many of the cases having had inadequate treatment, it is rather discomforting to realize that in positions of responsibility there may exist cases of latent and of neurosyphilis. Stokes[5] reported, in over one thousand cases, eight times as many syphilitics among railroad men as among farmers! His article, which discusses also cerebrospinal complications, is of very great interest. Various other writers have stressed the great prevalence of syphilis among railroad workers, and such workers are frequently exposed to trauma.

Whether or not syphilis is acquired innocently or through carelessness, any occupational dermatoses that may be aggravated by the disease has to be taken care of by the insurance carrier. It would be wise, and perhaps would be the means of lessening disability and saving expense, if every patient with occupational troubles had a Wassermann test done at once.

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III. SYPHILIS IN RELATION TO EYE INJURIES

HANS BARKAN, M.D. (Stanford University Medical School, San Francisco).—It is not an unusual event to find the eye specialist treating an eye inflamed and injured without realizing that the manifestations of the injury may not be due to the direct effects of the trauma alone, but are complicated by the fact that they are partially manifestations of syphilitic processes aroused to activity by the trauma. When one considers the number of dormant syphilitics in the community, one is rather surprised that not more syphilitic post-traumatic manifestations are seen than is the case. To illustrate the point: Only very rarely, if ever, does the eye of a syphilitic, when operated upon for glaucoma or cataract, show any other than a normal course of healing. When, however, the trauma is a blunt one, such as a blow from a piece of wood, or a lead shot striking the cornea, or an eye hit by a piece of swinging rope, just to mention three personal cases, it must be borne in mind that the injury may arouse specific manifestations in an eye so predisposed.

1 Alderson, Harry E.: Syphilis in Relation to Occupational Injuries, Calif. and West. Med., Vol. 35, No. 6 (Dec.), 1931.

2 United States Public Health Reports, Vol. 31, No. 39 (Sept.), 1916.

3 Klauder, Joseph V.: Syphilis and Trauma, J. A. M. A., 78:1029-1037 (April 8), 1922.

4 Foerster, Harry R.: Industrial Dermatoses, Arch. Dermat. and Syph., 17:585-601 (May), 1928.

5 Stokes, J. H., and Brehmer, H. E.: Syphilis in Railroad Employees," J. Indust. Hyg., 1:419 (Jan.), 1920.

The most frequent of these is interstitial keratitis. Of these, I have seen four cases, published in the *Transactions of the American Ophthalmological Society* in 1926. The patients were all congenital luetics in their thirties and forties, at an age when interstitial keratitis as a congenital manifestation does not occur. In the injured eye in each case there developed, within a week after the injury, a typical keratitis, and in each case the second eye followed after several weeks or months, just as spontaneous cases in children do.

Iritis not infrequently follows a very trivial external injury, and is usually characterized by a severity out of all proportion to the external blow on the lids or eyeball. In one case I saw it develop as a typical iritis papulosa.

Blows of minor severity on or about the eye can be followed by periostitis of the supra and intra-orbital margins as luetic manifestations. I have seen only one instance of this. Igersheimer, in *Syphilis und Auge,* states that luetic retinitis, choroiditis, and neuritis may follow blunt trauma in the luetic, but it seems to me that these sequelae, while they may occur, must be very rare and isolated cases.

The main interest, for practical purposes in the coincidence of trauma and syphilis in the eye, consists in the fact that a number of patients claim compensation disability, and we are occasionally asked to act as referee in such cases. The position I took in regard to this in several instances is as follows: First, the case must be seen on the day or not later than two or three days after the injury, so that the primary effect of the injury is still evident, and examination of the cornea and iris discloses that the process is not one distinctly antedating the injury. Second, the injury must be sufficient, and we must take our stand firmly against such injuries claimed as dust in the eye, exposure to wind or draft, cocain or atropin in the eye, conjunctivitis, etc. In review of the case which must be accepted, the trauma has always been a forcible striking of the corneal tissue, even though by a small object involving the breaking of the continuity of the tissue, or a blow of sufficient severity to cause deep hyperemia and disturbance of the lymphatic circulation of the eye. Third, the luetic effects must appear in a week or two after the injury, and fourth, the process must be typical, so that no doubt of the diagnosis can arise.

If we assume that the relationship of trauma to interstitial keratitis is only accidental in time, there is no such problem to be considered. We simply deny that interstitial keratitis is the result of any claimed trauma. If we believe that there are enough authentic cases, ruling out all cases of trifling injuries, conjunctival inflammations, nonirritating chemical or gaseous contact with the cornea, such as soap, atropin, etc.; and ruling out, also, many reported cases which were probably not interstitial keratitis at all—if, doing all this, we are still convinced that there are enough legitimate cases to establish beyond question the fact that trauma is of etiologic moment, we must maintain in such a case that the particular trauma can cause the luetic eye manifestation, and that, consequently, all the time of the disease is compensable, and the permanent loss of vision, to be estimated one year after the last inflammatory symptoms have disappeared, to be compensated.

Coutard's Method of Treatment of Cancer.—Since the results of Coutard therapy in the treatment of cancer of the larynx, pharynx, and hypopharynx have been so far superior to any present or previous method, Chamberlain and Young believe that no other procedure should be considered when roentgen treatment for the disease at these sites is indicated. The same statement holds for cancer in certain other organs, for example, the cervix, breast, bladder, esophagus, bronchus, and rectum, although it is often necessary to modify the dosage, depending on the size and location of the tumor and the condition of the patient. In those lesions which respond to Coutard therapy better than to "massive doses," the advantage of the protracted fractional dose method must rest on the existence of a more rapid "recovery rate" in the skin than in the tumor. There are tumors requiring massive doses just as surely as there are tumors that require the method of Coutard. Certain small superficial growths are completely destroyed by a single large dose of from 3,000 to 5,000 roentgens with complete assurance that the resultant ulcer, of small size, will heal completely; for example, a small or moderate-sized, isolated nodule of recurrent mammary cancer in an accessible or superficial location. A plan of monthly doses of from 300 to 800 roentgens (usually in a three- or four-day series) is considered by the authors whenever they are faced with (1) a highly roentgen resistant tumor and a microscopic structure that indicates a high degree of tissue differentiation (fibrosarcoma, neurofibroma, metastasizing thyroid adenoma) or (2) when the element of vascularity is an important factor (hemangioma, certain telangiectatic tumors of the spinal canal, some highly vascular but relatively radiation-resistant sarcomas of the bone). While the literature appears not to contain any analytic references to this type of technique, it is obvious that Newcomet, Ewing, Ginsburg, and others, have consciously or subconsciously adopted some such method.—*Radiology.*

The Art of Thinking.—Whoever lacks a ruling interest will fail to make the most of his mind; for without such training and experience as the long-continued pursuit of a subject gives, the intellect does not develop its power. Nor will the man of too many interests grow to his full mental stature. Mental growth in mature life, as shown by Spinoza and other examples, is fostered by nothing so much as an absorbing aim.

He who has a liking for a science or an art, for a branch of literature or period of philosophy, for the life of a great man, the history of a people, or other line of inquiry, is already on vantage ground. He is in a position to gain both insight and outlook. A point here and a point there will be located by the aid of which he may not only survey his own field, but also orient himself in wider provinces of knowledge. Thus he may hope to find some of the fundamentals of truth and life.

Through coping with problems, through investigation, reflection, and discussion, he will learn how to think. Meanwhile he will have a joy in books unknown to the haphazard reader; he will see more in life and the world than meets the casual eye. His days will be remote from the tragic need of killing time, for his leisure will be full of contentment, often of happiness and zeal.—Leon J. Richardson.

Adult education is in one sense a youth movement. Consider the countries involved. They are mainly the ones where English, the Scandinavian languages, German, and French are spoken. This fact is significant. In science, literature, and other fields of sound thinking, the peoples using these languages take high rank. They are progressive, giving much attention to the problems involved in bettering human life.